

A NATIONAL POLICY

DEVELOPMENT PROCESS ON WASTE INCINERATION AND CO-PROCESSING OF SELECTED WASTES AS AFR IN CEMENT KILNS



**environment
& tourism**

Department:
Environment Affairs and Tourism
REPUBLIC OF SOUTH AFRICA

Key Comments Received

April 2008

KEY COMMENTS – NGO SECTOR

- **Very comprehensive comments provided by the NGO sector – used expert reviewer Mr Alan Watson, commented for NGO movement including IPEN (International POPs elimination network) on various waste and POPs related matters previously – resulted in a balanced overview**
- **Policy vacuum**
- **Identified few administrative issues: not referencing, spelling, grammar, reference conclusions without supporting information**
- **Lack of detailed information on waste types and quantities**
- **Looking at managing waste not reducing waste**
- **Incineration and co-processing reduces incentives for waste minimisation**



KEY COMMENTS – NGO SECTOR

- **Financial feasibility of dedicated incineration facilities and co-processing not proven**
- **Risks associated with handling & storage of hazardous wastes**
- **Queried number of EIA processes ongoing**
- **Current performance of cement industry**
- **Historical lack of enforcement - Concern about DEAT being able to monitor compliance and enforce**
- **Not all kilns in SA BAT**
- **Emission limit values – dust, heavy metals and dioxins**
- **Health impacts from cement dust**
- **Cement quality issues**
- **The kilns assessment only discusses the kilns in general terms there is no dioxin, PCB, metals or VOC data.**



KEY COMMENTS – NGO SECTOR

- **Concern raised regarding temperatures of the exit gases which for some plants are high and are likely to produce dioxins.**
- **Concern about high NOx levels**
- **An ideal policy foundation is the South African, Polokwane Declaration on Waste Management of September 2001**
- **The development of any strategy for Hazardous Wastes treatment and disposal should be in accordance with the provisions of the National Implementation Plan (‘NIP’) for the Stockholm Convention which is not available**
- **Two references for health reviews undertaken are included and it was strongly suggested that they become part of the consultation process**



KEY COMMENTS – NGO SECTOR

- Concern about the poor level of compliance of the cement industry
- Concern about dioxin formation increasing at start up and shut down of the incineration plants & at upset conditions
- A call is made for continuously sampling for dioxins, should South Africa recommend thermal treatment
- Comments made that the test burn undertaken in Vietnam can not be called a success as the NOx levels were nine times higher than the EU Waste Incineration Directive standards
- It is notes that at times when the Electrostatic Precipitators trip, emissions to the atmosphere are experienced.



KEY COMMENTS – NGO SECTOR

- **Comment made on cement kiln dust and that it could become very polluted**
- **A concern is raised that there are no laboratories in South Africa that can do dioxin analysis**



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KEY COMMENTS – COMMUNITY

- Double cost saving for the cement industry
 - Spend less on fuel
 - Are paid to take waste
- Always been a problem with dust at plant
- Poor feed back from cement industry
- Poor wind activity in Pretoria
- Uncertainty about what emissions will consist of when burning waste
- Toxic metals will not be captured
- Cement quality may be affected
- Potential community health affects
- Present emissions are unacceptably high
- Used Slurry to predict impact for Pretoria
- High body burden already in the area from dust



KEY COMMENTS – COMMUNITY

- **Trust issues**
- **14 x higher levels of dioxins at Jupiter**
- **Current levels of NOx emissions**
- **Increased emissions:**
 - **VOC, CO, NOx, CO2, Mercury, other metals & increased dust**
- **High rate of TB and respiratory diseases**
- **Meeting but not finding meaningful solutions**
- **Housing on the fence line of cement industries**
- **Want independent research**
- **Want dialogue with industry**
- **Loosing farmland and schools**
- **Noise issues**
- **Quarry rehabilitation**
- **Land development framework**



KEY COMMENTS – COMMUNITY

- No transparency about emissions
- Do not want waste to be imported into the area
- Illegal landfill sites
- Picking at landfill sites
- Water contamination – from landfill
- Dams being contaminated with plants
- Local people want to benefit from process
- Social responsibility programs
- Waiting for housing
- No proper sewage
- Sore eyes from cement dust
- Noise from blasting
- Industry employs people from outside of the community
- Need clinic in the area
- Concern about DEAT being able to enforce



KEY COMMENTS – INDUSTRY

- Issues raised by gasification manufactures about the decline of incineration and the increase in number of gasification plants being built
- The rate at which waste can be introduced into a cement kiln is very limited. It will only make a minor contribution to solving the problem of disposing of MSW in cities
- The type of waste that is to be introduced into the kilns needs to be carefully selected
- A number of grammar issues were identified in the Kiln assessment document
- The adoption of the EU criteria for hazardous waste use in kilns as proposed is a sensible route to follow
- The policy document should not present a motivation for the use of HTTT but rather develop a set of policy

statements on what needs to be adhered to for the use of



KEY COMMENTS – INDUSTRY

- The cement industry has difficulties in handling significant quantities of wastes with high chlorine contents or wastes containing significant heavy metals, especially mercury, therefore disposal in approved landfills must remain part of the policy mix until alternate technologies become technically and economically feasible
- Need to be guided by international practice but also taking into consideration Southern Africa’s social, economic and environmental development goals.
- The fact that thermal treatment results in a reduction cannot be used as a stand alone reason to proceed. HTTT will be subject to the Waste Management Bill
- It would create an outlet for tyre recycling but is not the

only outlet
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KEY COMMENTS – INDUSTRY

- Should be no restriction on % of fuels and materials that can be used internationally
- Concern about deviating from the EU Waste Incineration Directive by combining emissions standards for Cadmium (Cd), Thallium (Tl) and Mercury (Hg)
- Concern again about deviation from the EU Directive with regard to the other metal emissions monitored by adding Barium (Ba), Beryllium (Be), Silver (Ag) and Tin (Sn)
- Where kilns have baseline testing they should be exempt from doing baseline testing again
- Guideline document should be more specific in its guidance to the cement plant operator
- Concern about the requirement for exit gas

conditioning/cooling and temperatures of <200 °C in the



KEY COMMENTS – INDUSTRY

- South Africa has detailed and specific standards and legislation governing the handling and transportation of dangerous goods. These should be referenced during the development of this section
- The guideline document omits that tolerance limits that need to be developed for inputs into each cement kiln
- A detailed manual must be developed for the sampling and checking of the incoming waste
- South Africa has detailed and specific standards and legislation governing the storage of dangerous goods. These should be referenced during the development of this section
- To define maximum storage times for AFR at the cement plant is inappropriate, but very appropriate for a pre-processing plant



KEY COMMENTS – PROVINCIAL GOVERNMENT

- The documents circulated are excellent and clearly indicate that DEAT has well researched the process
- Got the impression that the guideline document is cast in stone
- The wording of the guideline must be more assertive that what it is at present
- There is no EU regulation governing the amount of hazwaste fuels that a cement kiln can use
- References left out
- Should consider waste minimisation
- Guideline document not strong enough
- Concerned about no limits being set on heavy metals



COMMENTS AND RESPONSES DOCUMENT

- **Issues raised to date have been carefully considered**
- **Detailed comments and responses document has been put together**
- **The issues raised at the community meetings are not captured in detail – this will be done over the next week, after which document will be distributed again**
- **A national wide compliance audit of the cement industry will take place over the next month**

